

AR36

Radiation Development Co. Ltd./1973 Annual Report



President's Report



To Our Shareholders

Two years ago, your company entered into a research and development program which sought to improve the utilization of wood chips processed into pulp and then into paper. We saw this effort as one of major importance to the pulp and paper industry because even a modest improvement in their value in pulping meant significant profits in an industry noted for low margins.

A miniature pulping plant was installed in our laboratories in Vancouver, along with the most modern testing equipment available. Working with major suppliers of radiation equipment and pneumatic systems, we completed our physical plant. Our concept was to irradiate wood chips and, in doing so, change their molecular structure so that there would be less degradation of usable fibre in the pulping process — and thus higher yields. At the same time, we looked to this same irradiation effect to solve another major problem — that of heat accumulation and the related spoilage of wood chips which are stored outdoors for months at a time prior to pulping.

In attacking these problems, we brought to our company leading experts in pulping, in radiation chemistry, and in process engineering. We also created a scientific advisory

board of leading members of the academic community to guide us in our efforts.

After literally hundreds of tests of pulping in our laboratories under various conditions and radiation dosages, we gradually gathered a body of data, refined our system, determined the radiation parameters, and were satisfied that we had a technically and economically feasible system.

Our next step was to convince a major paper company that our system was well enough advanced to justify its application in actual field trials at a commercial mill. The Georgia-Pacific Company, one of the majors in the industry, agreed to this effort and we installed a mill-scale conveying and radiation system at their Toledo, Oregon plant — a system capable of handling a third of the total number of wood chips that flow through this major pulp mill.

About a year ago, the system was designed and installed, debugged, and tested, and during the year two full-scale mill trials were completed.

These actual on-site runs reproduced the successful results we achieved in the laboratory. We were convinced that we did, indeed, increase pulp yield in meaningful amounts with equivalent product quality.

A final test of our mill-scale system will be conducted at Toledo, Oregon, early in the summer, after installation of certain instrumentation which will provide for improved measurement of test results.

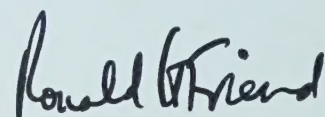
Because we are convinced of our success, we are moving ahead on an aggressive marketing effort with other pulp and paper companies, both here and abroad. Our marketing program now involves another major north american company, which has already begun testing our process in their own laboratories, after spending some time with us in Vancouver. We have also commenced work on a contract with a Swedish company to conduct a feasibility study in our laboratories. Several other companies have visited with us or have been in communication with us, and discussions are underway.

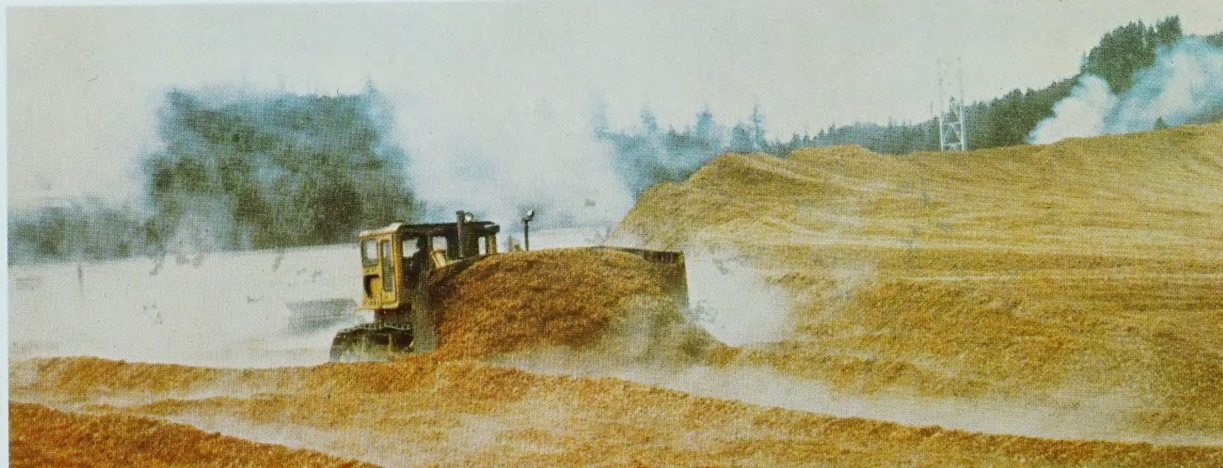
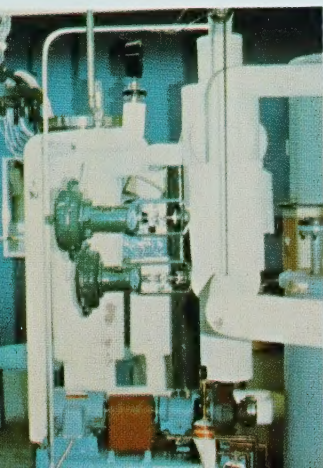
Management is confident that a major breakthrough has been achieved, and we feel the system will gain acceptance by the pulp and paper industry.

With any major new process, acceptance comes only after careful evaluation by the industry. Our process has impact on many aspects of pulp mill operation and since the overall evaluation can be complex, interested companies move slowly and cautiously. However, we are confident that we will emerge shortly from this introductory marketing phase and become a profitable operating company.

The patience you have displayed is most appreciated, and we do pledge our total commitment to bring to fruition our efforts.

Sincerely,

A handwritten signature in dark ink, reading "Ronald G. Friend". The signature is written in a cursive, slightly stylized font. The first name "Ronald" is written in a larger, more prominent script, followed by "G." and "Friend". The signature is positioned to the right of the word "Sincerely,".



Auditor's Report

Radiation Development Co. Ltd.
and Subsidiary Company
Consolidated Financial Statements
as at February 28, 1973

TOUCHE ROSS & CO.

Suite 1500 The Board of Trade Tower
1177 West Hastings Street
Vancouver 1, British Columbia
(604) 681-7235

The Shareholders,
Radiation Development Co. Ltd.

We have examined the consolidated balance sheet of Radiation Development Co. Ltd. as at February 28, 1973 and the consolidated statements of deferred expenses and source and application of funds for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

The company has incurred deferred expenses amounting to \$1,625,871 and process rights and patent costs amounting to \$171,815 in connection with the development of its irradiation process. Recovery of these costs is dependent upon achievement of a level of operations which would permit such recovery. The eventual outcome cannot be determined at this time.

In our opinion, subject to the successful completion of the development and marketing of the irradiation process and ultimate recovery thereby of the deferred expenses and process rights and patent costs, these consolidated financial statements present fairly the financial position of the companies as at February 28, 1973 and the results of their operations and the source and application of their funds for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Touche Ross & Co.
Chartered Accountants

Vancouver, B.C.
April 6, 1973

Statement 1

Radiation Development Co. Ltd.
and Subsidiary Company
Consolidated Balance Sheet as at
February 28, 1973

ASSETS

1972

Current:

Cash and short term deposits	\$ 402,616	\$ 111,494
Accounts receivable	2,482	2,991
Investments, at cost	—	32,989
Prepays	14,054	8,451

419,152 155,925

Fixed assets — Note 2

254,267 305,996

Process rights and patent costs — Note 3

171,815 166,976

Deferred expenses:

Development, research and administration
expenses — Note 4

\$ 1,106,508

Field prototype expenses — Note 5

519,363

1,625,871 996,988

\$ 2,471,105 \$ 1,625,885

LIABILITIES

Current:

Accounts payable	\$ 122,919	\$ 211,127
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SHAREHOLDERS' EQUITY

Share capital — Note 6

Authorized

4,000,000 shares no par value

Issued and fully paid

1,900,000 shares (1,650,000 shares 1972) 2,340,450 1,404,107

Retained earnings:

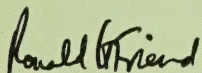
Opening balance 10,651

Less: Loss on sale of investments 2,915

Closing balance 7,736 10,651

\$ 2,471,105 \$ 1,625,885

On behalf of the Board:



Director



Director

Statement 2

Radiation Development Co. Ltd.
and Subsidiary Company
Consolidated Statement of Deferred Expenses
for the year ended February 28, 1973

	Balance as at February 29, 1972	Incurred During Year	Total
Direct field prototype expenses:			
Materials and equipment	\$ 364,951	\$ 49,119	\$ 414,070
Salaries and employee benefits	17,903	8,122	26,025
Contract labour	15,000	21,027	36,027
Consulting fees	32,854	1,753	34,607
Travel and incidentals	4,969	3,544	8,513
Miscellaneous	68	53	121
	435,745	83,618	519,363
Development, research and administration expenses:			
Materials	43,215	61,793	105,008
Salaries and employee benefits	183,138	192,484	375,622
Contract labour	—	20,586	20,586
Consulting fees	159,096	28,888	187,984
Travel and incidentals	61,819	61,566	123,385
Rent	37,261	27,844	65,105
Building supplies and maintenance	4,167	5,338	9,505
Utilities	3,972	5,673	9,645
Insurance	5,273	7,006	12,279
Taxes and licences	3,649	7,207	10,856
Legal and audit	17,407	33,532	50,939
Accounting	1,365	718	2,083
Industry and shareholder relations	23,276	45,181	68,457
Telephone and telegraph	13,000	15,699	28,699
Office and stationery	17,647	6,353	24,000
Interest and exchange	—	958	958
Depreciation — Note 2	24,531	42,691	67,222
Miscellaneous	4,587	12,664	17,251
	603,403	576,181	1,179,584
Less: Other income			
Government grant	—	(15,792)	(15,792)
Interest	(36,974)	(6,534)	(43,508)
Consulting income	(5,186)	(8,590)	(13,776)
	561,243	545,265	1,106,508
Total deferred expenses	\$ 996,988	\$ 628,883	\$ 1,625,871

Statement 3

Radiation Development Co. Ltd.
and Subsidiary Company
Consolidated Statement of Source and
Application of Funds for the Year
ended February 28, 1973

1972

Source of funds:

Industrial Research and Development Incentives Act (IRDIA) Grant	\$ 15,792	\$ —
Refund of duty and sales taxes	11,844	—
Consulting income	8,590	5,186
Gain on sale of investments	—	8,037
Proceeds of share capital issue	936,343	844,107
	972,569	857,330

Application of funds:

Development, research and administration expenditure — net of depreciation	526,956	275,564
Field prototype expenditure	83,618	435,745
Purchase of fixed assets	2,806	313,540
Incorporation costs incurred	—	461
Patent costs incurred	4,839	15,887
Loss on sale of securities	2,915	—
	621,134	1,041,197

Increase (decrease) in working capital	351,435	(183,867)
Working capital (deficit) at beginning of year	(55,202)	128,665
Working capital (deficit) at end of year	\$ 296,233	\$ (55,202)

Notes to Financial Statements

Radiation Development Co. Ltd.
and Subsidiary Company
Notes to the Consolidated Financial
Statements as at February 28, 1973

Note 1 — Principles of Consolidation

The accompanying consolidated financial statements include the accounts of Radi-Pulp Research Ltd., a wholly-owned subsidiary.

Note 2 — Fixed Assets, at Cost, Less Accumulated Depreciation and Amortization

	1972	
Office furniture and fixtures	\$ 38,117	\$ 38,075
Laboratory equipment	246,879	255,959
Leasehold improvements	36,493	36,493
	321,489	330,527
Less: Accumulated depreciation and amortization	67,222	24,531
	\$ 254,267	\$ 305,996

The company's depreciation and amortization policy is on the following basis:

Office furniture and fixtures — straight line over 10 years
Laboratory equipment — straight line over 7 years
Leasehold improvements — straight line over life of lease (9 years, 7 months)

Note 3 — Process Rights and Patent Costs

The company acquired the rights to a wood irradiation process for the consideration of 1,000,000 common shares of the company and \$150,000 income debentures. The company has not assigned a value to this

**Radiation Development Co. Ltd.
and Subsidiary Company
Notes to the Consolidated Financial
Statements as at February 28, 1973**

issue of shares and accordingly carries the cost of this acquisition on its books at the face value of the issued income debenture \$150,000. Subsequent additional expenditures on patents and process rights are included at cost. The income debentures have been repaid.

The company intends to commence amortizing the process rights and patent costs when its development stage is completed and to fully expense these costs within five years and over the first 15 units sold, whichever is sooner.

Note 4 — Deferred Expenses

The company intends to commence amortizing deferred expenses when its development stage is completed. The amortization policy for these deferred expenses is to be identical to the above policy for process rights and patent costs.

Note 5 — Field Prototype Expense

The company is continuing testing of the prototype of its proposed equipment at Georgia-Pacific Corporation's (G.P.) pulpmill. The company must reimburse G.P. for any operating costs in excess of normal and indemnify G.P. against claims and losses. The company has obtained insurance to cover some of its indemnity. The company is also responsible to remove the prototype on request at its own expense.

In consideration for the use of its facilities, G.P. has a right to lease or purchase a commercial system based on a reduction of the greater of 20% below list price or \$250,000 U.S.

Note 6 — Share Capital

(a) Since incorporation shares of the company have been issued as follows:

Issued for:	Number	Value
Process rights		
— Note 4	1,000,000	\$ —
Cash	650,000	1,404,107
Balance at February 29, 1972	1,650,000	1,404,107
Cash	250,000	936,343
Balance at February 28, 1973	1,900,000	\$ 2,340,450

(b) The company has reserved 100,000 common shares for issue to key employees nominated by the directors at the average market price on date of sale. During the year, 5,000 shares were contracted at \$7.00 and a further 5,000 shares were contracted at \$8.00 per share. In 1971 55,000 shares were contracted to employees at \$3.50 per share. These share issues are subject to the approval of the British Columbia Securities Commission, the Vancouver Stock Exchange and the shareholders, and are therefore not reflected in these consolidated financial statements. Further conditions of such sales, when approved, are that:

(i) The company shall not deliver the shares until it has recorded earnings of at least 35¢ per share;

(ii) The company shall deliver the shares at the rate of 20% per year;

(iii) The employee shall pay for the shares if, as and when, delivered;

(iv) Upon termination of employment the contract shall be null and void and the sale of any shares not already delivered shall be cancelled.

(c) The company issued the following warrants during the year:

New York Securities Placement Corporation
15,000 shares at \$5.00 per share to be exercised within 5 years

Weis Voisin International
12,500 shares at \$6.50 per share to be exercised within 3 years.

Note 7 — Directors' and Senior Officers' Remuneration

No directors fees have been paid. Directors' and senior officers' direct remuneration for the year ended February 28, 1973 amounted to \$60,215 (year ended February 29, 1972 — \$65,725).

Note 8 — Income Taxes

Development, research and administration expenses although deferred on the consolidated financial statements, must be claimed for income tax purposes.

As a result, the company can earn up to \$1,106,508 (before deduction of the amortization of development, research and administration expenses contemplated in Note 4) in varying amounts up to 1978 without incurring any income tax liability. Deferred field prototype expenses will be claimed for income tax purposes when the unit is sold.

Note 9 — Lease Commitment

The company is obligated as lessee under a lease expiring October 31, 1980 which provides for annual rentals of \$27,000.

Note 10 — Distribution Agreement

The company entered into a revised five year agreement during the year with Rader Companies Inc. (Rader) appointing Rader exclusive marketing agent of the company's irradiation process to the pulp and paper industries throughout the world.

Note 11 — Contingent Liabilities

Subsequent to the successful completion of its underwriting in Canada during the year, the company became aware that as of October 19, 1971, 37,300 shares were registered as being held by 16 United States residents.

It may be alleged that part or all of the purchases by United States residents involved a distribution in the United States which should have been registered under the Securities Act of 1933. A contingent liability may then exist in respect of the above mentioned shareholders who might have the right to sue the company for rescission or damages. The indicated maximum exposure to registered shareholders with United States addresses would appear to be in the area of \$130,550.

It is the company's position, supported by an opinion of its legal counsel that its distribution in Canada had been completed and substantially come to rest before, in any instance, resales were made in the United States and that no contingent liability exists:



